

AVIATION

The Oldest American Aeronautical Magazine

MAY 26, 1924

Issued Weekly

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VOLUME
XVI

NUMBER
21

SPECIAL FEATURES

A USEFUL RADIO ADDRESS ON AVIATION
AMERICAN FLIERS FIRST TO SPAN PACIFIC OCEAN
ADMIRAL MOFFETT CLAIMS FOR NAVY ALL SEA FLYING
NOTES ON THE DESIGN OF CORPS OBSERVATION AIRPLANES

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6666

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AVIATION

Published every Monday

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AVIATION EQUIPMENT

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Vol. XVI

MAY 26, 1924

LAWRENCE K. O'LEARY, EDITOR
VERNON E. CLARK
EDWARD P. WILSON
RALPH H. LYONS, CONTRIBUTING EDITORS

No. 21

AVIATION

Air Regulations and the Commercial Pilot

IT is often said that we have no aviation laws because the public and Congress are apathetic to the subject. That is a part of the truth, except bills of less importance are passed and it does not take a man to see that there is real opposition to any regulation of aviation. Unfortunately most of this opposition does not come from any share owners but from the men who are carrying on the only actual commercial flying which exists in this country, that is the "Gang Flies" or "Barn Stormer," the exhibition and coast line and the men who own a small field or who trades on airplane parts.

The opposition apparently is partly a matter of psychology but mostly a fear that the pocket will be affected. The independent fliers say that the cost of obtaining a license and of having his machine inspected periodically would be very considerable and they claim that an arbitrary board of referees would refuse because to please whom would be really impossible. The exhibition fliers feel that he would be seriously hampered if not entirely put out of business by legislation. The same men who invested their own money in a flying field feel that it is unfair for the government to maintain large flying fields which would compete with their own. The exhibitors are using war surplus material parts that has operations might be hampered by too strict an inspection. When the pocket nerve is threatened even the hardiest aviator gets squeamish.

Aside from the money feature there is the moral attitude of the barn storming pilot. He is essentially independent, likes his own battles and big form of regulation is entirely foreign to him nature. He is often rebellious and believes that the efforts to pass regulation air legislation are directed to the "Air Craft Trust" with the sole purpose of freezing out the small fliers. He argues that it is his own work which he is doing and that he is the only real judge of whether his plane is in shape or not. He feels that he is the man who at the risk of his own life, and often at great financial sacrifice has developed road aviation in the country and that it is in who is keeping it alive and that it is all wrong for any one who is not a flier to tell the flier what he is or is not to do.

The point of view of the men who are doing most of the commercial flying in this country is of real importance. There is a growing feeling that associations and laws for the protection of flying must be built on the foundation of the efforts of those who are actually doing the flying in the United States. The Wisconsin bill at least in its original form seems to have had many of its provisions framed to apply to the larger craft organizations and to be really something out of touch with the needs and interests of the private owner or the small companies as they now exist in the United States.

The public has a right to demand licensing and inspection of planes and various regulations such as are applied to automo-

mobiles and motor boats. Such regulations should be so framed as not to be a burden to the individual owner but that they would be a real help in inspiring the confidence of the public. Most of the professional aviation pilots are refined men and are flying perfectly sound machines. Laws which would assure the public that there were no exceptions to the rule would help the good example of fliers and if framed after a careful study on the particular problem of the individual and with the idea of helping the private flier they would not be burdensome.

The Air Habit

AT the recent annual dinner of the British Institution of Naval Architects, Lord Thomson, the Air Minister of Great Britain made some pertinent remarks regarding the development of civil aviation. He said he would "set the best lesson, all the public spirit, and all the intelligence of this country" behind the cause of developing aviation. Having briefly outlined the "Rear's" position in relation to aerial transportation, he spoke of its vital need for improved services, and expressed the opinion that the success of aerial services depended upon the encouragement of "the habit of the air." He said:

"What I believe has got no cause to pass me regard to civil aviation is that we must produce some kind of flying apparatus which will interest the activity of young men who are anxious to travel. There needs of doing something, but make the something to be fairly cheap. I believe the future of aviation lies in the encouragement of the habit of the air. We have a great carriage state because our people had the habit of the air. We have got all sorts to encourage the habit of the air, and I believe that in these three methods we may find the key of the situation."

When is a Flier at Sea?

UP to 99.9 percent survival in the existing laws, the Navy cannot allow a pilot credit for any service except when he is actually at sea. Even though he is assigned to the submarine, for example, and making night flights from her station at Lakewood, this is not construed as "on service" but duty as land. The fact that the sailor, or an airplane, for that matter, is in its element when flying over land or sea, makes no difference according to decisions of the Naval authorities. When would we drop in practice and future congressional?

However, the question of sea legislation regarding this subject is being considered in a board of the Navy Department, it is understood. Under the proposed law, if the Submarines were cruising with the fleet at sea the service of those on board would be construed as actual sea duty and their rewards would carry the time of such duty.

Our World Fliers Span Pacific

The Air Service's world route planes, Chicago, Boston and New Orleans, which landed at Chingoff, Atta Island on May 8, were delayed for several days by bad weather, rains and storms. The planes were held at Chingoff, and the fliers had to wait to get out for safety until the planes suffered in a small wave ride out a sixty mile gale safely. "Wounds" and high seas made it necessary to proceed. However, on May 10 the three fliers left Atta at 11:49 a. m. After flying for three hours they were forced down at the Komandorski Islands which belong to Russia and are off the coast of Kamtschatka. Thus was off on their scheduled route, as diagrammatically



The Paris to Tokyo flight—The elegant P2A2 cargo observation plane and its crew—Capt. Peiper d'Oray, pilot, and Capt. Brevard Vroom, mechanic—who have reached Canton, China.



relations have not been established between the United States and Russia, but in awaiting the storm the fliers showed good judgment and exercised ability in navigation. After a three hour wait for the storm to abate the fliers proceeded to Kosakobura Bay, Formosa. The American destroyer John D. Ford and two Japanese destroyers had been en route to the fliers for two days, so the weather had been excellent, but the American party had to wait for the fliers to land and a search had to be started. The fliers had been therefore enroute when at 11:50 a. m. they heard the drone of the motors and Lieutenant Smith's plane appeared out of the haze, streaked by the shape of Wada and Nishimura. The delayed time between Atta Island and Formosa was 15 to 20 hours. The flying time was 12 to 3 men and it is estimated that the fliers had been enroute to the fliers for 10 hours. Due to the fliers' involving wait-and-weather flight, the fliers were as in what was referred to as giving the heading hand, but the Navy Department seems to think that the last part of the flight was made at night. This is the first flight from America to Asia, and considering the weather it is a most commendable performance.

Bad weather delayed the planes one day at Penang, but on the 18th they hopped off for Hotsingka Bay, Tsinchow, China, at 3:25 a. m., a distance of 569 m. The Japanese destroyer Asama was enroute to the fliers and the fliers proceeded to a point half way between the two islands. After a seven hour flight the planes landed on Lake Tsinchow, back of Hotsingka Bay, where buses had been placed in sheltered water in the course of the U. S. destroyer Pope and the Japanese destroyer Asahidake.

The fliers have on board an ordinary compass and the new Pioneer earth inductor compass which seems to be working not very well. The delay among the Asiatic islands will make the fliers go through the Chinese area during the typhoon season.

Major MacLean left Port Moller, Alaska, on board the steamer Catherine D and he should arrive in the United States June 1.

Paris to Tokyo Flight

Capt. Peiper d'Oray and Sergeant Vroom are keeping up the remarkable test flight they started when they started on their Paris to Tokyo flight, on April 24. The two fliers left Paris on April 24 and on April 25 they flew from Europe to Hawaii, the capital of French Indo-China, a distance of about 1,000 m. There d'Oray issued a cablegram from the French War minister, presenting him to the rank of captain, and arriving to Vienten the Mekonghale Militaire, due their great flight at about the 400 hp. Lorraine engine which had served the fliers without any trouble for 9000 m. m. was replaced by a new engine of the same make and power, as was to greatly

A Useful Radio Address on Aviation

By LAWRENCE D. BELL

Vice-President and General Manager, The Globe L. Marke Co.

AVIATION has had several requests for information as to the kind of talk that could be given from radio broadcasting stations to foster public interest in aeronautics. The following address, given by Mr. Bell from The Willard Broadcasting Station, WTAZ at Cleveland, Ohio, on April 26, was as follows: "This is printed below as an excellent test for others to use. At our request, Mr. Bell sufficient space is available to print or completely without mentioning his name.

AVIATION believes that no greater service can be rendered the cause of American Aviation than that our readers "tell the world about the wonders above the horizon." To do this, all that is needed is to call on the several broadcasting stations, telling them you have a talk on aeronautics and see if they will let you have a radio talk openly. This was done to New York, and The Radio Corporation of America was very glad to have such a talk made of their station WZ.—EDITOR

"Air Mail and National Defense"

The last war has proven that the airplane will be the most important weapon in our future national defense. We must present the direct relation between Air Mail and national security, at the earliest moment in the development of the peace. Air Mail Service, and to understand the value of airmail aviation to war military organizations.

The first regular air mail service in the United States was established by the government between New York City and Washington, D. C. on May 12, 1928. Considerable time and care have been expended to make rapid delivery of mail in various parts of the country. On Sept. 8, 1932, the Post Office Department completed the establishment of a transcontinental air mail route between New York City and San Francisco, which is now the only air mail service in operation by the government.

Work of the Air Mail

Since the inauguration of the first route on Dec. 12, 1927, the Air Mail has been operated daily in all kinds of weather, and has covered a total of over \$600,000 m. More than 22,000,000 letters have been delivered by this service, which has established the remarkable record of completing 99 per cent of its trips on schedule.

During 1933, over 13,000 letters were sent. More than 45,000,000 letters were carried, and 98 per cent of the flights were completed on schedule.

Up until the present time the Air Mail has been merely an auxiliary to mail service, transcontinental mail being taken from the trains at various points in the morning, advanced by airplane during the day, and returned to trains at night. To shorten the delivery time of the Air Mail, however, airplanes must fly through the night. The Post Office Department demonstrated to a firm and last summer that night flying is not only possible but that scheduled service can be maintained with the same regularity as the day service.

During this test mail planes left New York City and San Francisco each morning. In the evening their mail was transported to Chicago, and Chicago to Cleveland. Chicago was responsible. During the darkness the New York mail was carried to Cleveland and the San Francisco mail to Chicago. At daylight the mail was again transferred to other planes, which finished the trip. In this manner, mail was transported from coast to coast in each direction in 22 hr., without interruption or mistake.

Equipment for Night Flying

To obtain the most rapid and reliable service the installation of special ground equipment was necessary. The landing fields between Chicago and Cleveland were effectively lighted. Metal lathehous were built and equipped with searchlights of 40,000,000 candlepower. Along the route emergency landing fields, properly lighted, were established every 25 m. In addition, beacon lights that flashed twenty times per minute were installed every 3 m. to guide the pilots over the route.

In recognition of the remarkable efficiency of the present Air Mail Service, the Post Office Department's Air Mail service between the country and world overseas. Congress has recently appropriated additional funds to make rapid flying possible. Chicago and Cleveland a permanent part of our Daily Air Mail Service. This great advancement in the transportation of transcontinental mail will be a reality yet this summer.

Importance to Business World

The Air Mail will therefore come to rendering a new and valuable service to the public and business world. It will be delivering important letters, news, our contracts, less than one-fourth the time required by any other present means of transportation. Furthermore, the revenue from this service will be more than sufficient to pay all operating expenses.

The Post Office Department will issue Air Mail stamps on an average of 10 to 20 cents. These will be divided into three categories, rural and urban. The important mail will be carried by these fast airplanes between any two points on each route for 8 cents, from one route to another for 12 cents, and from coast to coast for 28 cents.

When one considers that frequently transcontinental mail is sent special delivery, as a cost of five times the regular postage, to get a few hours at the most in the delivery of the mail, the importance of night flying is evident. It is only reasonable to expect that such important letters will be paid by Air Mail, at a cost of 24 cents, whereby nearly four days of transportation time can be saved.

It is to be expected that Air Mail Service will meet with every financial success that it will be rapidly expanded by the Post Office Department and commercial companies operating under government contract, serving an increasing number of cities.

Patented Weapons of National Defense

As cities and communities provide additional municipal airports, and new airports are established, and helped for night flying, more and more our country will receive the benefits of this modern method of mail transportation. Furthermore, installation of these necessary ground facilities will result in more rapid and accurate passenger and mail service to our cities. These airports and passenger and mail service will be carried by airplane, in competition with existing means of transportation.

Thousands of modern aircraft, operating commercially in every part of our country will be a great patented weapon of national defense. It is admitted by the military authorities in all countries that the airplane in the main impairs and destroys the strength of war even developed, that a war against a nation's entire population is done in the name of defense; that the only effective defense against such a weapon is the airplane.

The airplane is the only weapon of national defense in time of peace. European nations have realized that commercial aviation is as important to their national security as they have fostered private aviation of aircraft by assessing a part of the operation expenses. As a result

British World Flight

Major George MacLean, leader of the British world flight, who was forced down by the second failure of his propeller reduction gear at Paris in the Hindustan aircraft on April 26, resumed his flight on May 13, when he reached Mysore, India, the following day MacLean reached Adenland, and on the 16th he arrived at Colombo. The Vickers Valiant is being thoroughly overhauled, and a new four cylinder, 300 h. p. Napier engine will be installed before MacLean resumes his flight.

The British expedition's elapsed time from Shanghai, England, to Calcutta is fifty-one days.

Liaison to Macao Flight

Capt. Bruno Pao and Louis Bremont Breyer, the Portuguese airmen now attempting a flight from Lisbon, Portugal, to Macao, Kiangsi, British India, on May 4. The days were spent there in a legalistic radiator, and on May 7 the flight was resumed in the direction of Asia, but the machine was caught in a cyclone and had to make a forced landing at Jellipur. The machine was severely damaged, but it is reported that a new plane will be shipped to India to enable the Portuguese fliers to complete their flight. Captain Pao and Lieutenant Guedes, who served in India at Tientsin, were slightly injured, but Lieutenant de Souza was unharmed.

of this government subsidy, hundreds of airplanes are carrying passengers and merchandise daily throughout the various European countries.

The thousands of mail and commercial airplanes which we have here, the thousands of models of mail, passengers and merchandise would not only prove that we could be readily converted into war machines if emergency arose but, more important, would keep in training thousands of pilots. This great commercial operation would also provide hundreds of trained ground organizations as important to the smooth operation of either commercial or military aircraft.

LIGHT PLANES AND GLIDERS

Edited by Edmund T. Allen

A New Light Plane Report

The National Advisory Committee for Aeronautics (NACA) Building, Washington, D. C., announces the publication of a compilation of light plane data gathered largely from the English Light Plane Competition held at Luton, England, last November. At that meeting the greater part of the machines were the products of established aeronautical houses. In this country the greater number of our entries in the Dayton Races in April and October, 1925, were probably in the designs and products of amateur builders. In fact, at present most of the interest in light planes is among the paleontologists with small shops at their disposal. An enterprising such as the design of a monoplane model airplane presented quite a problem to him with little former experience to go on. It is no help to him to conclude that the National Advisory Committee report is published. So many requests for information have come in to the Committee that some form of complete reply was necessary. Included in the report is a digest of all machines which flew in Luton, arranged in order of their performance, and the aerodynamic features being placed first at obtaining greater refinement in design.

Large drawings, in scale, accompany the description of each machine. This will enable the amateur designer to see what arrangements of parts have been tried and which have given the greatest success. It will give the man who is interested with any form of light plane considerable information on how to construct the various types of construction that are current now. There is also included in the report a condensed set of drawings of all the machines, showing relative aspect ratios and areas at a glance. This chart is illuminating to the designer when compared with the performance figures.

Finally, in addition to the general remarks regarding the design of a propeller for a light plane engine, four monoplane propeller designs are given to the reader. These four designs cover the general conditions met with in design with the light plane propeller. There are two designs for a general propeller running at full engine speed (about 1600 rpm), one for a low speed engine (about 1200 rpm), one for a propeller with a fixed pitch, and one for a propeller with a variable pitch. The cost of these machines is about one fifth that of heavy monoplanes, and is as much as four times that of a fixed pitch monoplane, and is as much as four times that of a light plane monoplane. The weight of the light plane monoplane is reduced by about 50 per cent.

The propeller should not be a very difficult problem for the amateur designer who goes about it carefully. With one or two drawings before him, he can accomplish the following directions. And yet propeller construction has always been a headache in the layman. With a careful selection of wood, and a good plan of gluing the laminations together, the work is half done. The nature of cutting the blades, and the static balancing are quite good for a little practice of this type.

In regard to the preliminary layout of a new machine, there appeared some interesting comments in the Aeroplane

some weeks ago. The point was made that some means ought to have a way of beginning a design with angles on the wings and tail surfaces. They then had up the designs from that point onward. The first thing that comes to mind is that all of these had been on definite lines in the design made before he started work. It is a design without a plan. For the amateur especially it must be emphasized that the first operation in the general layout. After the preliminary considerations of type, form, and general arrangement are determined, the first thing to do is to lay out the machine as especially important in light plane design where the weight of the pilot may be as much as 22 per cent of the gross weight of the machine. During the preliminary layout some rearrangement of the wings and pilot's seat may be necessary in order to get the center of gravity in its proper position. The first thing to do is to lay out the main lifting surfaces. For the purpose of general arrangement and preliminary design, the National Advisory Committee report will be found very valuable. Detailed designs, stress analysis, etc. will come later. There are many agencies that will now perform this service for the amateur. They, or the original designer can, do nothing, however, until the first work of general layout is completed.

Light Seaplanes in Canada

It was reported by a Colonel of the Royal Air Force, visiting Washington from Canada, that there are at present in use in Canadian Posts and Services light seaplanes using Douglas motorcycle engines. The kinds of these little ships are constructed like canoes, and they stand up very well on landings on the lakes and rivers where the water is often very shallow. It is reported that they can get up to 100 miles an hour in these machines. The Douglas engine is a 45 h.p. engine that can get over the lake with engine as small as the Douglas. It must be remembered, however, that this little engine of only 700 cu. in. displacement, pulls at 25 hp. at about 1600 rpm. This is quite enough to get off with a light machine and it should give a very good performance. It is also reported that the Douglas engine is about one fifth that of heavy monoplanes, and is as much as four times that of a fixed pitch monoplane, and is as much as four times that of a light plane monoplane. The weight of the light plane monoplane is reduced by about 50 per cent.

It might be very useful for our government to look around

into the matter of light planes for use in such work as oil wells, and so on, as well as for the coast guard and similar purposes.

After the visit of the Colonel of the Royal Air Force, it was decided to go to the Aeroplane

AIRPORTS AND AIRWAYS

Chicago News

By R. C. Schreider

The Heath Airplane Co. has taken over Nissen-Black's airport for the summer, and is putting in a number of improvements. Part of the dock along the northern end of the field has been filled in, and a bridge has been built across the water. The old level of the bridge, so ships can now land across, has been lowered to the very low water of the field near Lake St. Ave. These improvements give the company an L-shaped field with longer runways than before, and enable planes to clear the flat landings at the end of the field. A flat land has also been put up to level back of trees and rocks, so that planes can land on the same level. A sign will call for the field all the time.

At the Nissen-Black airport was some time ago bought by a real estate firm which staked off the field into lots, it was found that it would no longer be available for flying purposes. These appear to have been confiscated at an early rate for the time being, for real estate owners will not be paid through the 1st of July late in the summer.

The Heath company has reduced its flying rate from \$50 to \$12 for 100 miles over the field, except on Saturday and Sunday, when the rate will be \$15 and up. As a result of this reduction there has been a very material increase in paying passengers, and on a recent weekend four or five ships were kept busy for 12 hours and nearly made money.

Herbert Anderson has set up his Janus, and Otto Pfeifer has brought his ship over from Chesterfield Field. John Miller has come down from the Glass Lakes. LaPierre Cavender has brought out his newly acquired Laird.

The Heath "Favours" has made its first trip with the O.S.S. motor equipped with the special valve gear. The ship cleared the field at 10 a. m. after moving up to 1850 rpm in the rear of a Hensel.

The Heath Standard last week made an advertising trip to Lorain, Ind.

La Prieure Brothers, formerly operating the Edgewater Beach Air Service, have gone into the motor sailing boat business. They have a boat 30 ft. long, and a 10 ft. boat. They will be out over the northern side of Chicago and dropped ashore announcing the opening of his new store and various prospective customers in come in and get a ticket for a free airplane flight, which will be called off soon.

The Wimco Model Aero Club's first outdoor contest, scheduled for April 26, was postponed on account of bad weather and was held on Saturday, May 8, at the Addams Field. The contest was a \$60.00 affair, with three prizes consisting of model airplane replicas.

Paul Shaffer South was the first prize with \$15.00, Bruce Adams, 2nd prize with \$2.450 sec., and Joseph J. Lutz, 3rd prize with \$1.00. The model of Mr. South averaged 1300 rpm.

The new estimate of the I.M.A.C. model meets for club members is as bad out that it will help prepare them for the Midwest Contest in Dayton. The schedule is as follows:

May 16—1000 cu. in. speed contest; June 6, duration contest for all types; June 13, duration contest for all types; June 20, duration contest for all propeller turbines and pushers; July 25, duration contest for the Laird pusher. Aug. 5, duration contest for all types; Aug. 12, duration contest for all types; Aug. 19, duration contest for McGehee race; Sept. 7, duration contest for all types; Sept. 21, duration contest for all types and final elimination contest for McGehee race.

The location regarding the building of model airships

schedule of model meets, club work, etc., or anything that may be of help to model aviation, please communicate with Eugene Essel, president of the I.M.A.C., 3705 East 46th Ave., Chicago.

Moines (III.) News

By Harry B. Campbell

All indications point to a very material increase in commercial aviation around the moines. The people are very enthusiastic and are purchasing the field as a whole leased to the city.

Louis E. K. ("Buddy") Campbell, Iowa's veteran aviator and in charge of the field activities for the Midwest Aviation and Motor Co., and R. T. Quigley who has been associated with Campbell for the past eight years is chief manager in charge of all air plane.

C. F. Powers, amateur pilot and owner of the Powers Aeroplane, is in charge of the pilot's department. The field is located 2 1/2 miles west of town adjoining a paved road and consists of 80 acres, approximately all open. The machines consist of a circle in the center of the field and also one on the roof of the largest hangar. All field facilities are available and cross country planes are always welcome.

The field is open to the public and the average enthusiast and Campbell states that the sooner in which he handles his Laird biplane would be a credit to a veteran.

H. D. Shepperson, a business man of Moines, is also a very capable pilot and flying conditions are indeed bad if he does not at least make one trip a day on his Laird.

John Koenig, Moines, has the spring installation of a cylinder biplane in a new building. He has a very nice installation and should have a wonderful performance job. He also erecting a new hangar at the field to house his ship.

Dayton News

Capt. E. E. Adler, supply officer of the Army Round the World Flight, has returned from Wilber Field hospital, Washington, D. C., where he has been taking treatment for several months. He will be on leave from Wilber Field Field shortly and be transferred to another post on his return.

Captain Adler was succeeded as chief of the Comptroller Section by Capt. W. H. G. Herren. Major Edward B. Hart, Capt. Frank C. Johnson, Capt. Harry Hartman and Capt. George Whelan's commanding officers, will be looking about within a few days. Workmen have started working on the sun lamps to obtain material for the erection of a gymnasium for Moraine Park school. It was from this field that one of the first radio-controlled flying machines ever left the ground, and was the first to fly.

The rail surface of a 1014B plane at McGehee Field were recently laid out by means of a metal spray in order that the fabric may be protected from the attacks of the soil formed from the condensation of chemicals used in producing smoke screens. This surface, which is to be used by the 10th and 12th Warbird Division in its experimental work, was given to Abberdon Proving Grounds, Mo., by Capt. H. W. Blane.

Tools of Large French Aircraft

Some large aircrafts were recently used in France. One of the largest, and the most interesting, was the Breguet 14, equipped with four 300 h.p. engines and carries 2 tons of bombs with a crew of five men. The machine weighs about 13 tons and measures 120 ft. in span. This ship was flight tested by Brosselot, the Farman test pilot.

The other plane is a Latham flying boat with a gasoline engine power plant of 1500 h.p. This has only been statically tested so far, the test giving a safety factor of 5.

Fokker Planes to be Built in U. S.

Aircraft designed by Anthony F. Fokker, the Dutch engineer, are to be built at New York by Maj. Leopold Speer, Speer & Associates, Inc., the New York branch of the division of the newly formed American Aircraft Corp., incorporated on May 23 from the New York office of the firm. Mr. Fokker will spend a considerable part of his time in the country with the new organization.

The directors of the new corporation, besides Major Speer are: W. H. Ford, of Ford, Bassett & Davis, Engineers; J. B. Clegg, of Clegg, Gosselin, and Gosselin, of Dagenham, Undercover, and Marshall, attorneys; 139 Broadway; Anthony H. G. Fokker, and R. B. C. Nossberg, who has represented the Fokker interests here for three and a half years. The chief engineering change of the factory is A. F. Fokker, who was formerly assistant engineer with Hispano-Suiza, and who was in charge of the design of the great four-engined biplane, the B-1, at Bally, Ireland, during the war. Capt. Blaikert E. Payne is the Washington representative.

The Atlantic Aircraft Corp. has a lease with option to buy on the factory and property of the former Williamson Aircraft Corp. at Bally, Ireland, for £10,000.

The factory was completed shortly after the war especially for aircraft manufacture. The main building is of brick and has a central bay built as a single span of 197 ft. and 29 ft. 6 in. long, with large folding hanger doors which open to the flying field. Adjoining the main assembly floor, separated by interior walls, are the two working and social working shops, stock and parts rooms. The parts houses, located in a separate building, contain a great deal of drawing and important offices are located on the second floor. The fact that the Boeing Bomber, world's largest plane, was constructed and completely assembled in this plant, while at the same time some forty DH-4s were being manufactured on the floor will give some indication of its manufacturing facilities.

Our Flying Cabinet Member

Secretary of Labor James J. Davis seems to be the flying member of the Coolidge Cabinet. Whenever he is in one place and it appears impossible to get to his next engagement on time, due to distance, he frequently appears there on schedule.

Recently he was able to keep an appointment at Philadelphia where he was in spite of all, although he was on Change, the night before. Taking a train to Cleveland that night, he arrived at Cleveland the next morning in time to leave there with the Air Mail at 9:30 a. m. and arrived at Indianapolis the same day.

When Lloyd George was here, Secretary Davis was in San Francisco, where he had addressed the American Legion Convention. He was pleased as to how he could reach Change in time to welcome his old friend, the former Premier of England. But through the aid of Secretary Davis, a long and postal mail plane was arranged, and the flying Secretary arrived in Change and met Lloyd George.

Red Oak (Iowa) Activities

The Red Oak Flying Field at Red Oak, Iowa, has again opened this season after two years of inaction and has resumed operations in student training, cross country and exhibition work. It has a 1,000 ft. hangar and is situated just north of the town of Red Oak. The field is in great pasture land, about 2,000 ft. x 3,000 ft. with numerous opportunities to landing such as wires, trees or buildings. The hangar and equipment is owned by C. E. Telle, a local man, and is managed by C. P. Gleason. Mr. Telle will probably be remembered as the sponsor of one of Iowa's best Flying Meets, held at Red Oak on June of 1922, and has done a great deal for aviation on the state.

Success of any kind can be had in the field at any time and visitors are welcome.

Selling Aviation to the Public

Marvin A. Sutherland, who maintains an aero sales agency in the Twin Cities, Minneapolis, and St. Paul, and Flynn Field at Edina, in a recent letter to Aviation makes the following vigorous comment on "Selling" aviation to the public:

"Any very much interested in the Publishers' News Letter because I am sure only good and a better understanding of the other fellow's problems can come out of such an agency and you will agree the result of it all will be a noted attack on the problems of today."

"I believe that today the problem for the small operator of flying fields, single planes or sales agencies is to make himself a part of the public's interest in aviation. In that way, naturally, the flying people on the "other" side of the counter will take advantage of the curiosity every human being has regarding a ride in an airplane. Then through short, safe, successful rides in his plane, he will sell confidence to the public and open new ways for service. This, I am sure, is the key to the whole situation."

H. A. Bruns & Associates

H. A. Bruns & Associates have moved to larger quarters in the Bowes Building, 1437 Broadway, New York. The firm represents the Fairchild Aerial Camera Corporation of New York, the Fairchild Aerial Surveyor Co., Ltd. of C. I. S., the Sky-writing Corporation of America, the Advance Aircraft Corporation of New York and the Netherlands Aircraft Manufacturing Co. of New York, Amsterdam, Holland and Kortrijk, Belgium. The firm represents the first company to be involved in the aeronautic industry for the dissemination of information pertaining to its clients.

Richard C. Byrde, treasurer of the firm, recently announced the opening of a branch office at 514 Duane Street Building, Cleveland, Ohio.

Hamilton Maxwell, Inc.

Hamilton Maxwell, Inc., Aeronautical Surveyors and Photographers of 500 E. 38th St., New York, have recently associations with Underwood & Underwood, and will do the same carry on as a separate organization as they originally did.

The company has utilized itself with Hudspeth Weeks, C. E., of Springfield, Mass., who has made a study of the market for aerial survey work and will be in full agreement with all Maxwell sales and contracts made as we are concerned, as well as acting in a consulting capacity for the firm. Arrangements have also been made with Aerial Survey, Inc., of Washington, D. C., to key down and complete all mapping work from photographs made by Maxwell, which firm will specialize in photogrammetric flying service.

Night Advertising News

The Night Army Advertising Corp., of 505 Seventh Avenue, New York, have concluded licensing contracts under their plan for the operation of night sky advertising in several of the larger cities. The company announces that they have signed additional desirable territory which may be leased to additional operators on a fair royalty basis.

Carrollton, Pa., May 20.—A. J. Tamm, who witnessed a demonstration of night sky advertising when a plane of the company piloted by Daniel Clark of Caldwell, N. J., made several flights over the city in connection with a national sun week celebration. The services of plane and pilot were contributed by the company for the cause of advertising.

German Aircraft in South America

The German airplane pilots, Capt. Eduard Mück and Obersturmführer Doenitz, have arrived in Buenos Aires with the plan to study the possibilities of establishing commercial service lines in Argentina, a report from Trade Commissioner George Brady of Buenos Aires, states. These pilots brought with them a Junkers 188 180 h. p. B.W. plane, with a carrying capacity of six passengers and a pilot. The captain is the present manager of the Junkers factory, and in an interview with a representative of the local press, he stated that the Junkers factory would overcome the regulations of the Versailles Treaty by manufacturing their planes in either Holland or Switzerland.

Leasing Corporation Increases Capital

The stockholders of the Leasing Aeronautical Engineering Corp. at a meeting held on May 5, authorized an increase in the capital stock of the Corporation from \$50,000 to \$75,000.

Focus on a Future Air War

Capt. René Fouca, Deputy in the French Parliament and World War hero, in an article written for the *Revue des Deux Mondes*, draws a vivid picture of the danger of a German war against England in the air, and points for an all-out war between France and the Central Powers. He states that the Air Service has been a leader in helping up public sentiment in France for a strong air force. He is president of the French Aeronautical League, which numbers about 120,000 members.

The basis of Fouca's argument is that Germany can build with the best of the world's best aircraft manufacturers, which can be easily transferred to military use by means of further extracts of German steel. Capt. J. Spain, Savoia and Russo—she can build ten times with her enormous chemical machine, Fouca thinks Germany could almost overnight supply gas and explosives for a potential air force.

Germany's potentialities of these airplanes and the aerial warfare will bring an immediate appearance in the sky of the most terrible scourge humanity ever suffered," he says. "When the wing of the great German airplane has struck upon the face of the earth will be thousands upon thousands of dead men, women and children. That will be the war of the future. The Germans are preparing for the contemplated war to be the most terrible in peace time of air warfare. The State spirit of Germans and their ambition make me for France an eternal enemy."

Quoting numerous German authors who write that Germany will not reign in the air, Fouca reviews the enormous number of these firms manufacturing airplanes, both in Germany and abroad. In case of need he thinks Germany will be able to produce 10,000 planes a month, and to import 100,000 planes from America. All factories and all machines which make supplies during the war still exist in Germany, he writes, and, while used largely for other purposes, they have not been basically altered.

In the all-armed planes which the Germans have concentrated Fouca sees the only way of countering production.

Fouca argues that Germany is the only nation that Germany now is laying bases for future war retribution, and that Germany's recent order for 1,200 airplanes from a Swedish firm seems fine.

"All these facts show that Germany already possesses, and certainly will soon possess, the means of a formidable air power," he says. "Other great countries are preparing for war, as are the United States, Japan, India, and Russia. The Germans across the Rhine escape from the restrictive clauses of the Treaty of Versailles they will be capable of making a formidable air fleet, and what we know of these military nations at least that they will not this summer see anything some dark night without a warning declaration of war."

Danish Airways

After negotiations with the air transport companies of Germany and Holland and the Danish Government, the Danish Air Trunk Co. has now definitely made its arrangements for an extension of its traffic during 1924, according to a report in the Department of Commerce from the Consul-General Attache at Copenhagen.

Under the route Copenhagen-Helsingør, which proved such a success, the new company will operate route Copenhagen-Helsingør-Kerteminde connecting with the Copenhagen-London route. According to the new schedule the planes for Roskilde will leave during the forenoon and the planes for Helsingør will leave during the afternoon. If the passengers now carry on with untroubled Swedish authorities and so on, it is estimated, the Danish planes will fly to Malmö after the 15th of June. The new route will be opened to arrive back in the morning from Copenhagen and Roskilde.

The Danes are to be used are of the same type as employed by the allied German and Dutch companies, that is, Fokker monoplane with closed cabin accommodating five passengers, pilot, mail and baggage.

A subsidy of £79,000 £1. has been granted to the Danish air line company by the Danish Government, who will get 50 per cent of the air traffic as compensation.

England for Air Force Limitation

The British Government would welcome proposals for an agreement to regulate armaments, said Premier MacDonald recently in the House of Commons.

The Prime Minister welcomed the suggestion made by Sir Edward K. Rees that the time was opportune for steps to be taken to limit the manufacture of armaments, and said that in the lack of his mind was the consideration on some of the pressing difficulties of Europe were cleared away, to face quite seriously the question of armaments of all forms.

He added that if he felt there was the least chance of re-

questing a declaration of war, he would make approaches such as those suggested.

Speaking of the greatest importance, he said, that there should be no reason for misunderstanding between France and Great Britain, but other nations were taking part in the unfortunate race which had already begun, and added that a sort of Washington agreement would be better than a bilateral agreement with Britain.

Malmo-Hamburg Air Line

The Aeroclub of Altona has announced that it will open a new service between Malmo, Sweden, and Hamburg, Germany, on May 26, 1924, for the carriage of mail and passengers. The machines to be used for this service will be D.H.50 passenger carriers. It is planned to operate the service in close connection with an English company which conducts an air line between Hamburg and Amsterdam and Amsterdam and London.

The Swedish company, at the time of its incorporation, will endeavor to increase its regular service, including with the English company, the operation of the Malmo-Hamburg route until such time as their agreement will permit these to take over the entire service on this line.

Death of a Famous German Pilot

Ogo Lauterbach, one of Germany's pioneer pilots, who established himself and his wife, a record of 22,000 ft. in 1918, recently broke his neck after falling out of an airplane on which he was taking a refresher course. He had been flying for six years, and decided to take out a new pilot's license. He was extremely anxious when he climbed on board the plane. As the machine left the ground, spectators were horrified to see his face rise from the seat and jump over board while the ship was about 100 ft. above the ground. It is believed that Lauterbach was a victim of nervous collapse.

Russia's Interest in Aerial Photography

Among thirty Soviet scientists, who are doing research work in the laboratories of the University of Moscow, under an agreement between the Soviet and the German governments to Prof. L. X. Daskaloff, who is specializing in aerial photographic survey work.

THE Aircraft Service Directory

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